

THE HIP REGION

- Remember! In anatomical terms, the **thigh** is that part of the lower extremity between the hip and the knee.
- The **leg** is that part of the lower extremity between the knee and the ankle.

BONES OF THE HIP

- The innominate bone is also known simply as the hip bone and sometimes as the coxal bone.
- The two innominate bones, together with the sacrum, make up the bony pelvis.
- Each innominate bone is composed of three fused bones: the ilium, ischium, and pubis.

Landmarks to know on the innominate bone

- sacroiliac joint
- pubic tubercle body of pubis
- ala (wing) of ilium
- anterior superior iliac spine
- ischial spine
- greater sciatic notch acetabulum
- pubic symphysis
- superior pubic ramus
- ischiopubic ramus

Landmarks to know on the innominate bone

- iliac crest
- posterior superior iliac spine
- ischial tuberosity
- lesser sciatic notch
- obturator foramen

Landmarks to know on the Femor

- head
- greater trochanter
- intertrochanteric line
- lines aspera
- neck
- lesser trochanter
- intertrochanteric crest
- gluteal tuberosity

The *inguinal ligament*

- The *inguinal ligament* is the lowest part of the anterior abdominal wall.
- It is a thickening of the aponeurosis of the **external oblique** muscle.
- It runs between the **anterior superior iliac spine** and the **pubic tubercle**.

Ligaments & Foramina

- The *sacrospinous* and *sacrospinous* ligaments help to hold the sacrum and ischium together.
- With the bony margins of the sacrum and the ischium, these ligaments define the borders of the greater and lesser sciatic foramina.

Structures passing through the ***greater sciatic foramen***

- piriformis muscle
- sciatic nerve
- superior gluteal nerve & vessels
- inferior gluteal nerve & vessels
- nerve to obturator internus
- nerve to quadratus femoris
- posterior femoral cutaneous nerve
- pudendal nerve
- internal pudendal vessels

Structures passing through the ***lesser sciatic foramen***

- internal pudendal vessels
- nerve to obturator internus
- pudendal nerve

Structures passing through the ***obturator foramen***

- The ***obturator foramen*** is an impressive hole in the dry bone but in life is almost completely filled by the **obturator membrane**, with only a small gap at the top through which the ***obturator vessels and nerve*** pass.

The *inguinal ligament*

- The inguinal ligament marks the dividing line beyond which the external iliac vessels become known as the femoral vessels.

The Fascia

- The ***fascia lata*** surrounds the thigh muscles.
- The **iliotibial tract** is simply a thickening of the fascia lata on the lateral aspect of the thigh running from the inguinal ligament to the proximal tibia.

Muscles Classified Based Upon Structure

- Contraction of any muscle has two possible effects depending on whether the limb is free to move or held in place.
- It may be held in place by the action of other muscle groups or by the fact that the foot is on the ground.

Muscles Classified Based Upon Structure

- If a muscle crosses two joints (e.g., hip and knee), the movement that it produces will depend on the action of other muscles acting at the same time on either joint.
- Muscle movements include flexion, extension, abduction, adduction, and rotation.

These Are the Actions of the Muscles of the Hip

- Six *rotators*
 - piriformis
 - obturator externus
 - obturator internus
 - gemellus superior
 - gemellus inferior
 - quadratus femoris

These Are the Actions of the Muscles of the Hip

- Five *adductors*
 - adductor magnus
 - adductor brevis
 - adductor longus
 - pectineus
 - gracilis

These Are the Actions of the Muscles of the Hip

- Three *abductors*
 - gluteus minimus
 - gluteus medius
 - tensor fasciae latae

These Are the Actions of the Muscles of the Hip

- Four *extensors*
 - semimembranosus
 - semitendinosus
 - biceps femoris
 - gluteus maximus

These Are the Actions of the Muscles of the Hip

- Four *flexors*
 - two acting only on the hip
 - iliacus
 - psoas major
 - two acting on the hip and knee
 - rectus femoris
 - sartorius

Arteries

- The **common iliac** artery gives rise to the **internal iliac** and **external iliac** arteries.
- The **internal iliac artery** gives rise to the *superior gluteal* and *inferior gluteal* arteries that pass through the greater sciatic foramen to supply the buttock area.

Arteries

- The external iliac artery passes beneath the inguinal ligament, beyond which it is called the femoral artery (sometimes called the common femoral).
- The femoral artery gives off two small branches, the superficial circumflex iliac and external putlental arteries, and a large branch, the deep femoral artery.
- The femoral artery (sometimes called the superficial femoral below the point where the deep femoral branches off) continues down the thigh beneath the sartorius muscle, passing backward through the adductor hiatus, beyond which it is called the popliteal artery.
- The deep femoral artery (sometimes called the profisndafemoris artery) is the main artery of the thigh. It gives off the medial and lateral circumflex femoral arteries and several perforating branches that pass backward through adductor magnus.